

Chapter 6 IMPLEMENTATION PLAN



INTRODUCTION

The preceding chapters of the Orcas Island Airport Master Plan Update identified future facility needs based on existing and projected demand, and FAA design standards.

Chapter 4, Development Alternatives, outlined a comprehensive Preferred Alternative that includes projects needed to ensure Orcas Island Airport continues to comply with FAA standards and recommendations, as well as projects to meet demand for aeronautical related services. These projects were allocated into time related phases based on need and anticipated demand levels. The Master Plan also brought together historical master planning efforts and incorporated them into this study where applicable.

The improvements depicted in the Preferred Alternative are incorporated into the Orcas Island Airport Layout Plan. Individual projects that when implemented over time will result in the Preferred Alternative are separated into three distinct time periods: 5-year (short-term), 10-year (mid-term), and 20-year (long-term) development phases. The purpose of the implementation chapter is to update the Airport's existing Capital Improvement Program (CIP) to include the projects outlined in the Preferred Alternative. This chapter describes the phasing and financial implications of implementing the specific projects. Additionally, the chapter identifies any non-aviation development projects that may serve to increase and diversify revenues. That section includes a description of funding opportunities that were specifically targeted for the non-aviation projects listed in this chapter. This chapter reflects both the information gathered during the creation of this master plan, but also ensures a match with the latest 2019

WSDOT CIP for the Port of Orcas as well. Overall, this chapter serves to:

- Update the Airport's CIP to include those projects related to the Airport's new development plan;
- Discuss non-aviation development projects and estimated costs; and
- Discuss the potential sources of funding for implementing the projects discussed in this chapter.

Many projects have interrelated components that must be identified and implemented in a coordinated manner for the project(s) to move forward. The first section of this chapter will discuss the required development sequence at the individual project level. The middle sections will present the specific projects by short-term, mid-term, and long-term development phases and include funding options. Other potential strategic and non-aviation related projects are also discussed. The last section will describe the potential sources of funds for each project. Planning-level cost estimates are provided for each project.

6.1 IMPLEMENTATION PROCESS

To complete each capital project, a number of specific steps are necessary. It is not unusual for FAA funded projects to begin up to four years before the facility/improvement is needed or required. This lead time is necessary in order to coordinate the funding, prepare environmental documentation and permitting, conduct project design, as well as complete the actual construction. The typical sequence of events necessary to complete an FAA eligible airport project is illustrated on the following page.





Figure 6.1. Implementation Sequence of Events



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Year of Construction

- Complete 100% design, plans, and specifications;
- Complete FAA Environmental documentation for current fiscal year;
- Advertise and secure bids according to acceptance schedules;
- Accept Federal grants;
- Coordinate with local officials and airport users on the progress and schedule;
- Issue notice-to-proceed; and
- Monitor environmental mitigation requirements during construction.



Next Steps

- Submit final report and close any accepted Federal grants;
- Monitor environmental mitigation measures; and
- Update ALP drawing set.

6.1.1 Environmental Considerations

The environmental process for projects within each development phase are completed in advance of the design and construction to allow for project completion in accordance with applicable Federal rules and regulations. In the short-term and mid-term, a five-year developmental Environmental Assessment may be appropriate to analyze the potential environmental consequences associated with the proposed action prior to construction beginning.

FAA Order 1050.1F, Policies and Procedures for Considering Environmental Impacts, and FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airports, require the evaluation of airport development projects as they relate to specific environmental impact categories. A complete evaluation of each applicable impact category identified in FAA Orders 1050.1E and 5050.4B is required during an environmental assessment (EA). It is possible that an outcome of the EA process is that, because potential impacts may not be able to be properly mitigated, an EIS is deemed necessary. AN EIS is a complex, multi-level environmental study led by the lead federal agency that seeks to resolve more complicated issues and reach a decision about whether the project can go forward in light of the anticipated impacts. For more routine projects that airports

undertake, the appropriate process is to prepare a Categorical Exclusion (CE). A CE form is typically submitted in lieu of completing an EA for certain categories of projects that FAA guidance have determined can be excluded from further environmental review. Once a CE is approved by the FAA, it allows for the project to proceed without the need for a costly EA. The timing of environmental review is also important since projects should commence within three years of receiving a finding of no significant impact (FONSI).

For this master plan update, the new parallel taxiway, fuel tank upgrades, hangar expansion area and the improved runway 13 turnaround will likely require environmental review in an EA. Each of these projects are included in mid-term to long-term CIP phases, which would occur more than five years from the completion of this study. It is not anticipated that any substantial environmental concerns would arise from any of the identified short-term development projects. In preparing for implementation of all projects, discussion with FAA environmental staff should take place to determine the best course of action for environmental processes.

6.1.2 Project Responsibilities

AIP-eligible airport projects are closely coordinated with the FAA to ensure compliance with all planning, design and environmental standards. Orcas Island Airport representatives



are responsible for project justifications and working closely with the FAA and WSDOT staff to secure funding and to prepare any necessary environmental processes and documentation. The Port of Orcas is also responsible for submitting grant applications to the FAA and WSDOT, issuing project bid advertisements, for project planning, design, and construction, as well as meeting all other requirements of local, state and federal agencies in support of the project. To assist with these efforts, the Port of Orcas will retain a qualified consultant as part of the individual project effort or as part of a multi-year retainer for services. To ensure FAA compliance with AIP eligibility and existing grant assurances, the Port of Orcas will need to select a consultant in accordance with FAA AC standards. Once FAA AIP money is accepted, the Port of Orcas must comply with all FAA grant assurances and work to meet design standards for a period of 20 years following most development projects. Assurances apply in perpetuity for land acquisition projects.

6.2 AIRPORT CAPITAL IMPROVEMENT PLAN (WSDOT CIP)

As previously mentioned, during the creation of this Orcas Island Airport Master Plan, the Port of Orcas prepared and submitted an updated (2019) CIP to the FAA and WSDOT. This implementation plan section reflects the agreements that were made by the FAA, WSDOT and the sponsor during that latest FAA joint planning conference. This section also describes the items that were identified as recommended for further development in the facility requirements and alternatives sections but are not yet included into the FAA CIP. As noted above, the recommendations included in this chapter are broken into short-term, mid-term, and long-term development phases. These projects range in total cost widely, from complex infrastructure improvement/maintenance projects costing millions of dollars to more routine projects costing far less.

The recommended projects presented in this chapter reflect improvements shown in the Preferred Alternative as well as from input the FAA, WSDOT, the Port of Orcas, and other stakeholders provided during the study

process. The following subsections provide additional detail of each project included in the recommended CIP. Planning-level cost estimates are provided for each of these specific projects. Rough order magnitude (ROM) cost estimates for the anticipated projects have been developed from estimated quantities based on preliminary engineering design for the major work items (e.g. asphalt, base course, earth work, and associated electrical items). A 20 percent contingency factor was added to account for unforeseen conditions and additional work that may present itself throughout the project's duration. Consultant services (planning, engineering design, construction phase and contract administration services) are added in at 15 percent and a Washington State Tax of 8.1 percent is also included.

Safety, FAA compliance and identified facility requirements are the primary factors that determine the type of projects included in the Preferred Alternative. As expected, safety is a critical component for project selection and timing. The proposed timing for projects included in the recommended Orcas Island Airport CIP is also based on cost-to-benefit-considerations and budget constraints while always considering safety and compliance.

6.2.1 Phase 1 - Short-Term Capital Improvement Projects

Short-term (Federal Fiscal Year) 2021 – 2025 capital improvements include those development items that are recommended to begin within the next five years. Table 6.1 provides the funding scenario for the short-term capital projects included in the Orcas Island Airport CIP. Each of the short-term projects is also summarized, including project description, costs and justifications. Figure 6.2 at the end of this section provides an overall graphic showing the location of each project.

2021 - Environmental Planning for Master Plan Projects

Estimated Total Cost: \$1.5M

The first project following a master plan is typically an environmental planning study to thoroughly examine the master plan's potential effects relative to specific environmental categories as established by the National

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Environmental Policy Act (NEPA). The type of NEPA project will either be an Environmental Assessment (EA) or an Environmental Impact Statement (EIS). An EA is the appropriate study when there is good reason to believe that any adverse effects to the environment can be mitigated such that there is no significant impact. Should there be reason to believe that the potential effects could be significant even after mitigation, then the proper course of action would be to conduct an EIS, which is a much more rigorous study that results in a record of decision by FAA. The Port of Orcas will work closely with the FAA to determine the best course of action and proceed accordingly. For planning purposes, the CIP provides a budget to accomplish either study.

2023 – Meet B-II Standards

Estimated Total Cost: \$890K

Relocate Southeast Development Area (Civil Design) – This is the first phase of development that, when completed, will accomplish the goal of meeting the standards for Airport Reference Code B-II. The program could be accomplished all at once in a single phase, but this would be a disruption that would effectively close the airport for the duration of the project and would require having all of the needed funds in hand. The phased approach limits the disruption and allows for obtaining the needed funds in a pay-as-you-go approach. This first project will provide the design and permitting for relocating the terminal area buildings and apron to a new location in the southeast corner of the airport.

2024 – Meet B-II Standards Relocate Southeast Development Area (Construction)

Estimated Total Cost: \$4M

This is the second phase of the project that will relocate the existing terminal buildings and apron to allow meeting the standards for Airport Reference Code B-II. This first construction phase will involve grading the new area, placing utilities, sub-base course and base course. The paving will occur after the buildings have been constructed so as to not damage new pavement with construction activities. Because the relocations are occurring in order to meet an FAA standard, the project is eligible for FAA funding and additional discretionary funds will be needed.

2024 - Land Acquisition/Swap: Parcels 103 and 104-A

Approximate Full Value of Parcels for Swap: \$278K

Two parcels of land will be required early in the planning period in order to accomplish the upgrade from ARC B-I to B-II and for land use compatibility. Approximately 2.77 acres from two existing larger easements will be acquired in fee simple. Avigation easements allow the sponsor to control the height of objects and limit land uses to those that are compatible with the airport. To accomplish the subsequent projects, however, a portion of these easements will need to be owned by the Port, who may consider offering a swap of property in lieu of a cash offer.

These parcels are shown on the Exhibit A Property Map, which is contained in the Airport Layout Plan (ALP) set of drawings. The current version of the ALP is kept on file at the Airport Manager’s office. The total estimated cost reflects the average cost per acre established by the San Juan County Assessor times the total acres needed. Actual valuation for the avigation easements, a value less than the total value of the property, will be established at the time the appraisal and negotiation occur. The process will follow the Uniform Relocation Assistance and Real Property Acquisition Act.

2025 – Meet B-II Standards – Southeast Terminal Area (Design and Construction of Buildings)

Estimated Total Cost - \$300K

This is the third phase of the project that will relocate the existing terminal buildings and apron to allow meeting the standards for Airport Reference Code B-II. This next construction phase will involve the design and construction of two buildings. The first is a terminal building that will be approximately 4,000 square feet and the second is a storage hangar that is approximately 3,000 square feet. No other buildings are included in this project. Tenant finishes would be in addition to this estimated cost and covered by the tenant.

Total Short-Term CIP (2021-2025)
\$8.61M



Table 6.1. Short-Term Capital Improvement Program

Project #	Year	Project	Federal		WSDOT/ State	Local/ Other	Rounded Total
			Non-Hub Primary Entitlement	State Appointment/ Discretionary			
0	2020	Carryover	-	-	-	-	-
1	2021	Environmental Planning for MPU Projects	\$300K	\$1.05M	\$75K	\$75K	\$1.5M
2	2022	Carryover (Primary Entitlement)	-	-	-	-	-
3	2023	Relocate Terminal Area: Civil Design*	\$801K	-	\$44.5K	\$44.5K	\$890K
4	2024	Relocate Terminal Area: Construct Grading, Subgrade, Base Course/Drainage, and Environmental Mitigation*	\$2.2M	\$1.4M	\$200K	\$200K	\$4M
5	2024	Land Acquisition Swap - Northeast Parcels 103 and 104-A <i>(Assessed Valuation - \$278K)</i>	-	-	-	-	-
6	2025	Relocate Terminal Area: Construct Replacement Terminal Building and BiPlane Hangar*	\$270K	-	\$15K	\$15K	\$300K
7	2025	Relocate Terminal Area: Construct Replacement Terminal Building and BiPlane Hangar*	\$730K	\$1M	\$96K	\$96K	\$1.92M
Rounded Subtotal Phase 1 Projects			\$4.3M	\$3.45M	\$430.5K	\$430.5K	\$8.61M

*Meet B-II Standards

6.2.2 Phase 2 - Mid-Term Capital Improvement Projects

Mid-term (Federal Fiscal Year) 2026 – 2030 capital improvements include those development items that are recommended to occur after the next five years. Table 6.2 provides the funding scenario for the mid-term capital projects included in the Orcas Island Airport CIP. Each of the mid-term projects is also summarized, including project description, costs and justifications. Figure 6.2 at the end of this section provides an overall graphic showing the location of each project.

2026 – Meet B-II Standards - Relocate Southeast Development Area (Construction) **Estimated Total Cost - \$4.11M**

Following the construction of the terminal and storage hangar buildings the development area will be paved and connected to the airfield. This will also include apron lighting, an 80-space vehicle parking lot with lighting, and the demolition of the existing terminal and two other buildings that are currently within the future object free area. The final element of the

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project will be the replacement of 15 tiedowns following the demolition of the terminal and hangars. The construction funding is expected to include approximately \$2.7M in FAA discretionary funds.

2027 - Meet B-II Standards – Widen and Reconstruct Runway 16/34 (Design)

Estimated Total Cost - \$610K

As described in earlier chapters, the airfield requires modification in order to meet the existing traffic, especially by the Cessna 208B Caravan. This project will address the runway width and will also establish new runway ends that allow for the standard length of protected area beyond each threshold. During the reconstruction, the runway will be widened 7.5 feet either side of centerline, new underdrains will protect the subgrade, and the edge lighting system will be replaced. The project

will also include stormwater detention that accommodates the new impervious surface. The design will occur in the first year and the construction will occur the following year.

2028 - Meet B-II Standards – Widen and Reconstruct Runway (Construction)

Estimated Total Cost - \$4.94M

The high priority project described above will be constructed in the year following design. The construction funding is expected to include approximately \$3M in FAA discretionary funds.

2029 - Meet B-II Standards – Relocate South Taxiway A Including A1 and A2 (Design)

Estimated Total Cost - \$500K

Continuing the phased series of projects to meet B-II standards, the parallel taxiway on the east side of the runway will be relocated



Table 6.2. Mid-Term Capital Improvement Program

Project #	Year	Project	Federal		WSDOT/ State	Local/ Other	Rounded Total
			Non-Hub Primary Entitlement	State Appointment/ Discretionary			
8	2026	Relocate Terminal Area: Paving Apron, Connecting Taxiways, Parking Lots, Lighting, Demo Terminal/Hangars, Pave Tiedown Apron*	\$1M	\$2.7M	\$205.5K	\$205.5K	\$4.11M
9	2027	Widen and Overlay Runway 16/34, Replace MIRL - Phase 1 - Design*	\$550K	-	\$30.5K	\$30.5K	\$610K
10	2028	Widen and Overlay Runway 16/34, Replace MIRL - Phase 2 - Construction*	\$1.45M	\$3M	\$247K	\$247K	\$4.94M
11	2029	Relocate South Taxiway including A1 and A2 - Design*	\$450K	-	-	\$50K	\$500K
4	2030	Relocate South Taxiway including A1 and A2 - Construction*	\$1.55M	\$1.75M	\$183.5K	\$183.5K	\$3.67M
Rounded Subtotal Phase 2 Projects			\$5M	\$7.45M	\$666.5K	\$716.5K	\$13.83M

*Meet B-II Standards



to the standard offset of 240 feet between the runway and taxiway centerlines. The taxiway pavement will be the same as the existing width of 25 feet. The taxiway will be moved over in two phases. Beginning at the south end of the airfield, the project will relocate the south half of Taxiway A and replace connecting taxiways A1 and A2 and includes underdrains and a taxiway lighting system. The project also includes the removal and replacement of the existing fuel facility. The design will occur in the first year and the construction will occur the following year.

2030 - Meet B-II Standards – Relocate South Taxiway A Including A1 and A2 (Construction)

Estimated Total Cost - \$3.67M

The high priority project described above will be constructed in the year following design. The construction funding is expected to include approximately \$1.75M in FAA discretionary funds.

Total Mid-Term CIP (2026-2030)
\$13.83M

6.2.3 Phase 3 - Long-Term Capital Improvement Projects

Long-term Federal Fiscal Year 2031 – 2040 capital improvements include those development items that meet the requirements through the end of the planning period and that are consistent with the development plan that was preferred among the various alternatives. There will be another master plan conducted near the beginning of the long-term phase that would be expected to adapt this plan to account for actual observed demand and completed projects. Table 6.3 provides the funding scenario for the long-term capital projects included in the Orcas Island Airport CIP. Each of the long-term projects is also summarized, including project description, costs and justifications. Figure 6.2 at the end of this section provides an overall graphic showing the location of each project.

2031 - Conduct Master Plan Update

Estimated Total Cost - \$670K

The FAA requires that airports receiving federal funds periodically update their master plans. This is typically done in 10-year intervals for airports that have fairly stable activity levels. This 2020 master plan's CIP is able to establish a high level of confidence in the implementation of projects and funding in the first five years. The five years following may have some uncertainty as to how those projects may actually be funded, but in general the trajectory of development should be able to follow the plan's outcome. However, prior to beginning the long-term projects, another master plan can affirm the assumptions, make adjustments according to observed activity levels and the aircraft that airlines are using, react to any changes in FAA design standards and/or funding levels, and conduct additional public outreach that guides development.

2032 – Carryover During Master Plan

Entitlement funds will carry over to be used in the 2033 pavement rehabilitation project described below.

2033 – Pavement Rehabilitation

Estimated Total Cost - \$1.11M

The normal upkeep of asphalt pavements is essential to extending their useful life. This project will fill any cracks and apply a sealcoat on the runway and other pavements as appropriate.

2034 - Environmental Review of Master Plan Projects

Estimated Total Cost - \$1.11M

Typically, the first project that follows the completion of a master plan is a thorough review of the projects likely to occur within the first three to five years. This is most commonly done by conducting an Environmental Assessment, which is an analysis that closely examines the affected environment and the potential effect that projects may have. The projects likely to be evaluated will include the continued relocation of the north half of Taxiway A, although the master plan may identify higher priority projects to be accomplished within that timeframe. Findings of No Significant Impact

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(FONSI's) issued by the FAA are normally valid for three to five years which coincides with the projects that are examined.

2035 – Carryover to 2036

Entitlement funds will carry over to be used in the 2036 land acquisition project described below.

2036 – Land Acquisition for BRL: Parcels 108, 109, 110, 111, 112, 116

Estimated Total Cost - \$3.8M

A number of parcels of land will be required during the course of the planning period in order to establish and protect a Building Restriction Line. Within these six parcels totaling approximately 4.5 acres of land, there are also five buildings/hangars that will be purchased in fee simple. The acquisition process will follow the Uniform Relocation Assistance and Real Property Acquisition Act. The total estimated cost reflects the average cost per acre established by the San Juan County Assessor times the total acres needed. Actual valuation will be established at the time the appraisal and negotiation occurs. Parcels are shown on the Exhibit A Property Map, which is contained in the Airport Layout Plan (ALP) set of drawings. The current version of the ALP is kept on file at the Airport Manager's office. The cost shown does not include relocation costs or removal of improvements.

2037 - Construct Helicopter Parking Apron

Estimated Total Cost - \$1.11M

This project is in the plan in order to identify an area within the Southeast Development Area for the parking of a helicopter so that it is on the ALP. This project can be sequenced to occur whenever demand for this helicopter pad is warranted.

2038 – Pavement Rehabilitation

Estimated Total Cost - \$1.11M

The normal upkeep of asphalt pavements is essential to extending their useful life. This project will fill any cracks and apply a sealcoat on the runway and other pavements as appropriate.

2039 – Westside Development – Phase 1

Estimated Total Cost - \$1.1M

Unlike the projects that are solely justified by meeting FAA standards for safety, the Westside Development is a demand-driven concept that

will respond to the demand for new aviation facilities, should there be any during the planning period. The bulk of the funding for the new facilities, other than connecting taxiways that will need to meet the FAA's standard separation for B-II, will come from private investment. This first phase assumes there has been a commitment by private interests in leasing land and developing hangars. This project would construct a 25-foot wide taxiway connection to that development area using FAA entitlement funds.

2040 – Westside Development – Phase 2

Estimated Total Cost - \$3.7M

Subsequent phases of development in the westside area will occur incrementally as demand for additional facilities materializes. This would come in the form of a ground lease to a tenant followed by the construction of a hangar and pavement that connects to a taxiway. For the purposes of this plan, an estimate was prepared to anticipate the buildout of the entire concept, although only those portions where private investment is made would actually occur. The Port's contribution would be in using FAA entitlement funds to connect development to the infrastructure placed in the first phase of the Westside Development.

2041 and Beyond – Land Acquisition: Parcels 104-B, 105, 106

Estimated Total Cost - \$530K

Even though not within the CIP during the master planning period, the relocation of the north half of Taxiway A and this enabling project are provided in the master plan so that the work done to identify the ultimate needs is carried forward for future studies. The Port must acquire some land prior to relocating the north half of Taxiway A in order to complete the projects that meet B-II standards. Portions of three parcels along the east side of Taxiway A and north of the current airport property boundary are planned to be acquired in fee simple. The total estimated cost reflects the average cost per acre established by the San Juan County Assessor times the total acres needed. Actual valuation will be established at the time the appraisal and negotiation occurs. The process will follow the Uniform Relocation Assistance and Real Property Acquisition Act.



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2041 and Beyond – Relocate North Taxiway A Including A3 and A4

Estimated Total Cost - \$3.92M

Even though not within the CIP during the master planning period, the relocation of the north half of Taxiway A is provided in the master plan so that the work done to identify the ultimate needs is carried forward for future studies. The remaining phase of the program to meet B-II standards will be the relocation of the north half of Taxiway A along with the new connecting taxiways. The parallel taxiway on the east side of the runway will be relocated to the standard offset of 240 feet between the runway and taxiway centerlines. The taxiway pavement

will be the same as the existing width of 25 feet. The project will relocate the north half of Taxiway A and replace connecting taxiways A3 and A4 and includes underdrains and a taxiway lighting system. The project also includes the demolition and regrading of the existing taxiway pavement as well as relocated stormwater conveyance structures. The design will occur in the first year and the construction will occur the following year.

Total Long-Term CIP (2031-2041+)

\$18.16M



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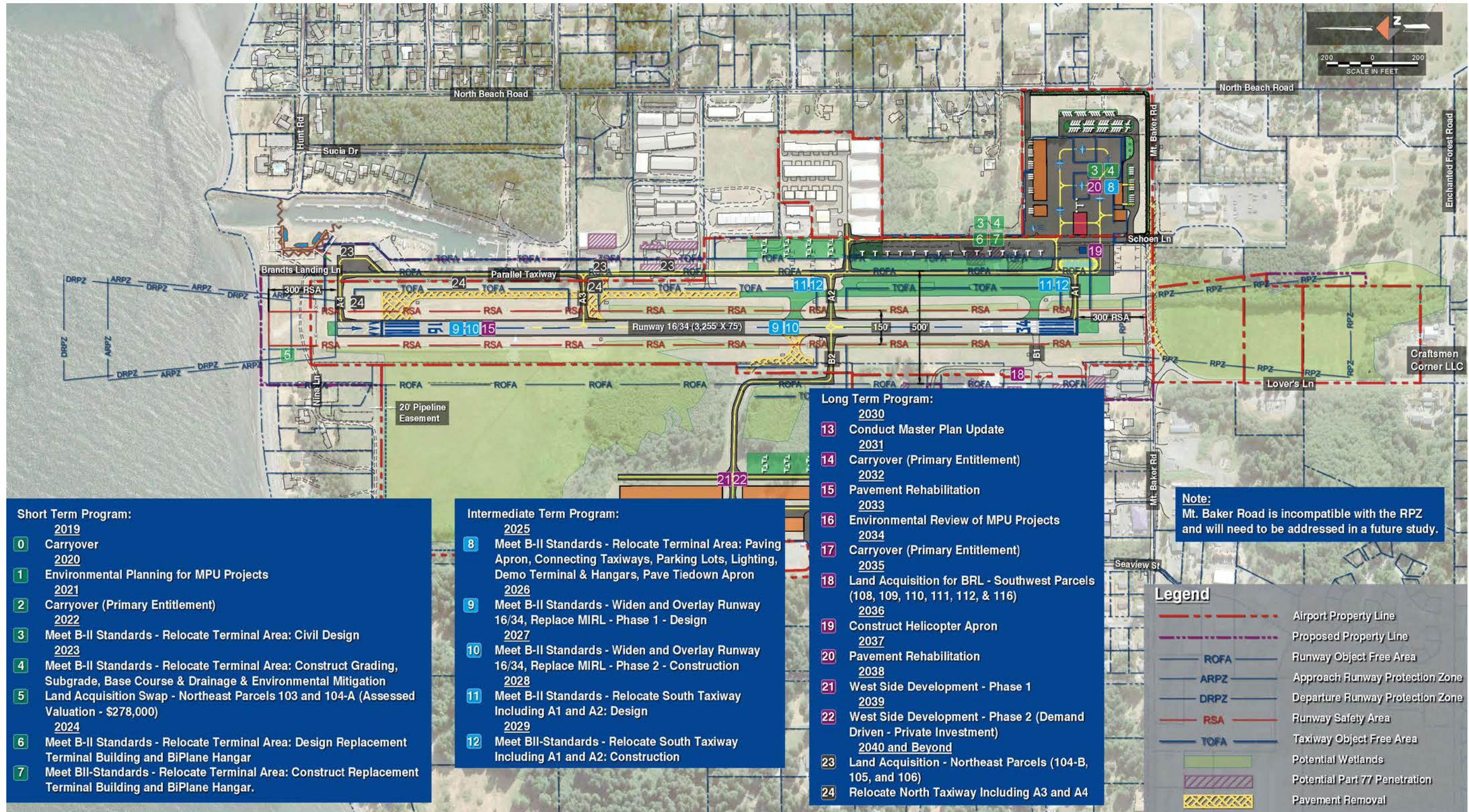


✈️ Table 6.3. Long-Term Capital Improvement Program

Project #	Year	Project	Federal		WSDOT/ State	Local/ Other	Rounded Total
			Non-Hub Primary Entitlement	State Appointment/ Discretionary			
13	2030	Conduct Master Plan Update	\$600K	-	\$33.5K	\$33.5K	\$670K
14	2031	Carryover (Primary Entitlement)	-	-	-	-	-
15	2032	Pavement Rehabilitation	\$1M	-	-	\$100K	\$1.11M
16	2033	Environmental Review of MPU Projects	\$1M	-	\$55.5K	\$55.5K	\$1.11M
17	2034	Carryover (Primary Entitlement)	-	-	-	-	-
18	2035	Land Acquisition for BRL - Southwest Parcels (108, 109, 110, 111, 112, 116)	\$3.4M	-	-	\$400K	\$3.8M
19	2036	Construct Helicopter Parking Apron	\$1M	-	-	\$100K	\$1.1M
20	2037	Pavement Rehabilitation	\$1M	-	-	\$100K	\$1.1M
21	2038	Westside Development - Phase 1	\$1M	-	-	\$111K	\$1.11M
22	2039	Westside Development - Phase 2 (Demand Driven - Private Investment)	\$1M	-	-	\$2.7M	\$3.7M
23	2040- Beyond	Land Acquisition - Northeast Parcels (104-B, 105, 106)*	\$475K	-	\$26.5K	\$26.5K	\$530K
24	2040- Beyond	Relocate North Taxiway incl. A3 and A4*	\$1.525M	\$2M	\$196K	\$196K	3.92M
Rounded Subtotal Phase 3 Projects			\$12M	\$2M	\$311K	\$3.823K	\$18.16M
Total Master Plan Capital Improvement Program			\$21.3M	\$12.9M	\$1.41M	\$4.97M	\$40.6M
*Meet B-II Standards			\$11M	\$11.85M	\$1.24M	\$1.29M	\$25.39M

*Meet B-II Standards

Figure 6.2. Potential Project Phasing





6.3 SOURCES OF CAPITAL FUNDING

Orcas Island Airport is eligible to receive funding from various sources, including the FAA Airport Improvement Program (AIP) program, the WSDOT Department of Aviation, airport/local funds, local Port match funding, and through other grants from the State of Washington Department of Ecology. It is anticipated that the projects listed within the recommended Orcas Island Airport CIP would be funded through a combination these funding sources, as detailed below.

6.3.1 Federal Funding

The FAA AIP program allows eligible airport sponsors to apply for grants to assist with funding for eligible airport planning, engineering and construction related projects. To be eligible, airport sponsors must be included within the FAA National Plan of Integrated Airport Systems (NPIAS). The NPIAS ensures that only those airports that meet certain minimum qualifications are eligible for federal funding. FAA AIP funds are supplied by the federal Airport and Airway Trust Fund, authorized by Congress. Nearly all of these trust funds are generated by aviation user fees, such as airline ticket taxes and other federal aviation related taxes. Many types of planning and construction projects are eligible for funding through FAA AIP grants, including, master planning, ALP updates, land acquisition, noise mitigation, airfield improvements, airport roadways, public areas of terminal building projects, safety and security systems, planning, environmental, and equipment. Orcas Island Airport is eligible to receive reimbursement up to 90% of eligible costs associated with planning and development projects through the FAA AIP program. The remaining 10% of costs is the responsibility of the sponsor, however, the WSDOT Aeronautics Division will usually allow cost sharing of this remaining 10%, through a 60/40 split.

As part of the inclusion of an airport within the NPIAS, every airport that is non-commercial or has less than 10,000 commercial enplanements per year, (non-primary), is eligible to receive up to \$150,000 in AIP programmed entitlement grant allocations, assuming that the airport CIP reflects a minimum need for that amount. These

funds are called Non-Primary Entitlement Funds (NPEs). All NPIAS airports are also eligible to apply for other types of AIP grant funds, such as state apportionment and discretionary. Unlike NPE funds, these funds are administered and granted on a competitive basis.

6.3.2 State Funding

The Washington State Department of Transportation Aviation Division (WSDOT) provides grant money for airport projects. As is the case with most states, the majority of the state funding is spent on pavement maintenance.

WSDOT's Airport Grant Program is available for any city, Port, airport authority, political subdivision, federally recognized Indian tribe, public corporation, or person(s) that owns and operates, a public-use airport included in the Washington Aviation System Plan (WASP). The maximum amount WSDOT Aviation can award to an individual sponsor in a single grant is \$250,000.

On projects seeking state funds only, the airport sponsor must contribute a minimum 5% match of the entire project cost. For projects receiving federal funds, it has been a long standing practice of the Airport Aid Program to support airports in matching their Airport Improvement Program (AIP) grants. Currently AIP grants require 10% of the project total to come from the airport sponsor. WSDOT supports grants to airports for up to half of their match requirement.

The Washington State Department of Transportation's Airport Aid Program provides an average of \$1,100,000 in state airport grants per year. During the 20-year study period the state grant program is forecasted to average \$1,400,000 per year, resulting in an average annual funding deficiency of \$12,000,000 according to a new study by WSDOT.

The Washington State Department of Ecology (DOE) provides financial assistance programs to support environmental management projects throughout the State.

The Statewide Stormwater Grant Program provides funding for projects that address water quality in the State of Washington and minimize the pollution of surface water and groundwater. The Program has in the past funded 75% of eligible projects. It is expected that the stormwater improvement project be eligible for DOE funding.



6.3.3 Local Funding

The Orcas Island Airport generates a small amount of revenue each year from fuel sales, and hangar, building and land leases. These revenues fall short of enabling the airport to be a fully self-sustaining entity, and as such, the Airport is supplemented by financial assistance from Port of Orcas. The Airport’s fuel sales include general aviation fuel (100LL) sold through a self-service above ground dispensing facility, and Jet fuel (JetA) sold through the Airport’s fuel truck when requested. The Airport also receives revenue from leasing airport owned buildings. The Airport owns and leases ten T-hangars and one box hangar. The Airport also owns and leases the FBO hangar building and office. These facilities all generate monthly revenues. Additional revenues are also generated from ground leases on which tenants have built privately owned hangars. The Airport currently has eight active ground leases with the potential to double revenues with completion of the newly constructed South taxiway and apron. All of the aforementioned revenues are used to help offset Airport operational and maintenance expenses. Any remaining funds in reserve are eventually used to help pay for the required local share of airport capital and maintenance projects.

6.3.4 Private Funding

Many airports use private financing when the planned improvements will be primarily used by a private business or other organization. Such projects are not ordinarily eligible for federal funding. Projects of this kind typically include hangars, fixed base operator (FBO) facilities, fuel storage, exclusive aircraft parking aprons, industrial aviation-use facilities, non-aviation office/commercial/industrial developments, and various other projects. Often, airport funds for infrastructure, preliminary site work, and site access are required to facilitate privately developed projects on airport property.

6.3.5 Airport Generated Revenue Financing

Typically, the revenues generated by airports are used to support the local match of eligible state and federal projects. However, some projects are either non-eligible for state or federal funding participation, or do not compete well for eligible funding. In these cases, the Airport Sponsor would be responsible for 100% of the project cost to implement the proposed development.

In order to determine the ability of Port of Orcas to support its financial needs related to future capital development, the Airport’s revenues and expenses are reviewed.

Historical Revenues and Expenses

Airport user fees represent the primary source of revenues typically generated for an airport. User fees refer to charges for the facilities and services provided at the Airport and are most often determined by area market conditions. For Orcas Island Airport, the greatest revenue source is the revenue generated from T-hangars, conventional hangars, hangar space, and land. Other revenue sources include tiedown fees, fuel sales, and other rents and concessions.

Airport operating revenues are offset by operating expenses and referred to as operation and maintenance (O&M) costs. These costs represent the day-to-day costs of operating the Airport. The Port tracks the following O&M costs for Orcas Island Airport as shown in Table 6.4.

Table 6.4 O&M Revenue/Expenses

Annual Revenue	
Landing Fees	\$6K
Airport Land Leases	\$57.2K
Hangar Leases	\$24K
Transient Tiedown Fees	\$750
Rentals	\$10.5K
Fuel Flowage	\$1K
TTF Access Fees	\$3.1K
Other Revenues	\$18.7K
Total Operating Revenue	\$125.8K
Port Property Tax Levy	\$242K
Leasehold Tax Levy	\$10.4K
Other Revenues	\$44.8K
Total Non-Operating Revenue	\$297.2K
Total Annual Revenue	\$423K
Annual Expenses	
Budgeted Operating Expenses	\$(279K)
Other Expenses (excluding reserves)	\$(42.3K)
Total Expenses	\$(321.3K)
Balance for Capital Expenditures	\$101.7K

Source: Port of Orcas 2018 Budget



Table 6.4 provides a summary of the 2018 budget of airport operating revenues and expenses from Port financial records. It's important to note that expenses identified exclude capital equipment expenditures to support maintenance efforts as well as major airport maintenance projects. Expenses shown also exclude any capital improvements. Revenues shown exclude any reimbursements associated with grant funding for airport improvements. As shown, the Airport generates approximately \$100,000 in surplus funds annually that can be used to match the \$1,000,000 in entitlement funds that are currently granted to ORS through the FAA's Airport Improvement Program.

The Airport's Capital Fund currently has a balance of approximately \$900,000 that can be used to match the larger project grant funds that will be needed to accomplish the upgrade to ARC B-II. Assuming the current annual surplus generates \$2,000,000 over the planning period, approximately \$2,900,000 of sponsor funds will be available over the course of the plan. Additional funds will be needed to accomplish all elements of the master plan, however much of this will be contributed by private development that constructs hangars and other business investment.

6.3.6 Other Funding

While the AIP is the primary source for funding capital improvements at public use airports in Washington, there are other options such as private funding mentioned earlier. Many airport sponsors have also obtained funding through general obligation (GO) bonds, revenue bonds,

special legislative appropriations, and loan programs that provide access and flexibility to funding. Despite the AIP eligibility of numerous proposed projects at Orcas Island Airport, priority ranking of airport projects can easily delay funding of needed improvements, so consideration of various options is a favorable approach. As the Port attracts more business tenants to the Airport and projected aviation activity is realized, the positive and growing cash flow will benefit the Port's access to other funding options.

6.4 CAPITAL IMPROVEMENT PLAN SUMMARY

Based on the identification of capital improvement projects for the Orcas Island Airport, total project costs for the recommended Port of Orcas CIP is approximately \$16,100,000 over the course of the planning period. The overwhelming majority of the total costs associated with these projected projects is expected to be eligible and funded at 90% by the FAA. These totals take into account reasonably foreseeable implementation steps, including the environmental documentation and required.

The following assumptions were necessary in the creation of the Orcas Island Airport CIP.

- The Airport will receive \$150,000 in NPEs for Federal Fiscal Years 2019 and 2020. Subsequent years the Airport will receive \$1,000,000 in Non-Hub Primary funds;



- Projects will be prioritized by WSDOT using the recently updated Washington Priority Rating Model for Project Evaluation and funded at various levels from 6% to 90% depending on the individual project;
- The funding necessary to leverage project grant funds will be provided by a combination of local sources and other grant funds;
- Strategic opportunities are expected to be funded through a combination of FAA, local, other grant funds, private developers, and to a lesser extent by WSDOT Division of Aeronautics grants; and
- Non-Aviation capital improvement plan projects will be eligible for a variety of Federal and State funding programs.

As previously mentioned, during the creation of this Orcas Island Airport Master Plan, an updated 2016 WSDOT CIP was submitted to the FAA and WSDOT. This implementation plan section reflects the agreements that were made by the FAA, WSDOT and the sponsor during that latest WSDOT CIP update.

6.4.1 Projected Revenues and Expenses

As noted earlier, FAA-eligible airport improvement projects provide a substantial return on investment for the Airport as the FAA funds 90% of the project. Still, the Port may encounter budgetary constraints that could limit their ability to provide matching funds on large projects, which could result in a project being postponed until it is financially feasible. For planning purposes, a summary of projected revenues and expenses is provided. Table 7C provides this summary of projected cash flow, which are based on some general assumptions about anticipated growth in revenues and increases in expenses. Based aircraft, aviation activity levels, and landside development are the primary factors affecting airport operating revenues. As additional development occurs to serve an increase in based aircraft and aviation business tenant activity, airport leases are updated and operating revenues correspondingly increase. Modest increases in

revenues are projected to align with the gradual recovery of general aviation, the economy, and the specific aviation demand projections for Orcas Island Airport.

While a variety of factors will determine the actual financial outcome—all of which are difficult to predict with any accuracy, the projections presented here take into account recent activity and tenant growth trends and projections as well as recent airport financial results. As shown, cash flow is projected to grow. These projections consider normal growth factors adapted to the unique characteristics of Orcas Island Airport, particularly with revenues associated with hangar, space and facility leases, which have shown overall growth and are projected to increase with forecast demand and the Port's development plans.

Taking the projected cash flow for the Airport over the 20-year planning period and comparing it to the CIP funding needs for the same timeframe provides a picture of the financial responsibility for capital improvements beyond the FAA and State funding resources, shown in Table 7D. The local/other share column shown in the table consists of Port of Orcas, any private development funding, and other possible agency grant funding sources; these are combined as Port of Orcas will be responsible for coordinating or securing such funds.

Phase I financial needs identified in Table 6-3 indicate an estimated \$3,060,000 total cost. \$150,000 is slated for Port funding with the balance anticipated from FAA in Entitlement funds (\$965,000) and State Apportionment/Discretionary (\$1,795,000) funding with WSDOT picking up the remaining \$150,000.

For Phase II, nearly \$1.2 of the \$7,800,000 local funding need is the Port's obligation. Half of this Port funding responsibility is the AIP-ineligible \$675,000 portion of the proposed taxiway/apron improvement construction project, along with another \$175,000 of ineligible development on the west side. One project in Phase II offers financial benefit as it contributes \$34,000 to the Airport fund following the release of surplus land from the airport property. The total cost of the property to be released is \$340,000, but 90% goes to the FAA as reimbursement for its acquisition in the past.

Chapter 6 IMPLEMENTATION PLAN



✈️ Table 6.5. Cash Flow vs. Local/Other CIP Funding Requirements

Phase	Revenues	Expenses	CIP	Net Income Local/ Other Net Difference	Share
Phase I (through 2023)	\$3,950,600	\$3,332,100	\$618,500	\$150,000	\$468,500
Phase II (2024-2028)	\$4,658,500	\$3,728,000	\$930,500	\$1,153,750	\$(223,250)
Phase III (2029-2039)	\$12,139,800	\$9,075,200	\$3,064,600	\$327,500	\$2,737,100
Total	\$20,748,900	\$16,135,300	\$4,613,600	\$1,631,250	\$2,982,350

Source: Port of Orcas; DOWL

This land release will also coincide with the Port’s acquisition of additional land needed to increase the safety of airport operations.

The surplus in Phase III is evidence of the projected growth in revenues coupled with the fact that all projects proposed in Phase III are eligible for AIP funds—with the exception of a \$100,000 portion on the west side development—helping minimize the Port’s financial obligation.

While Table 7D summarizes the financial scenario by phase to provide an overview, the Airport will incur net income shortages during specific years when major development projects are programmed. The Airport’s net income shortage is not uncommon among general aviation airports when local grant matches are needed. Shortages may also result if other anticipated funding sources do not come through or unanticipated financial obligations arise. However, as noted in Chapter 1, the Orcas Island Airport is an economic engine and valuable asset for the community and region—generating jobs and visitor spending, as described in the WSDOT Economic Impact Study prepared for airports. Therefore, the FAA, State, and local airport investments contribute to the economic development in the region in addition to serving the national, state, and regional air transportation systems.

6.5 SUMMARY

The Port of Orcas remains committed to developing the Orcas Island Airport into a facility that serves the community and surrounding region, needs of the air transportation system, and future economic growth. This Master Plan Update will serve as a tool to guide the Port’s future development plans. Planning is a continuous process and changes in the aviation industry, economic environment, and numerous other factors may require adjustments in timing of planned improvements. The fundamental elements addressed in the Master Plan will assist the Port in responding to such adjustments in the coming years.